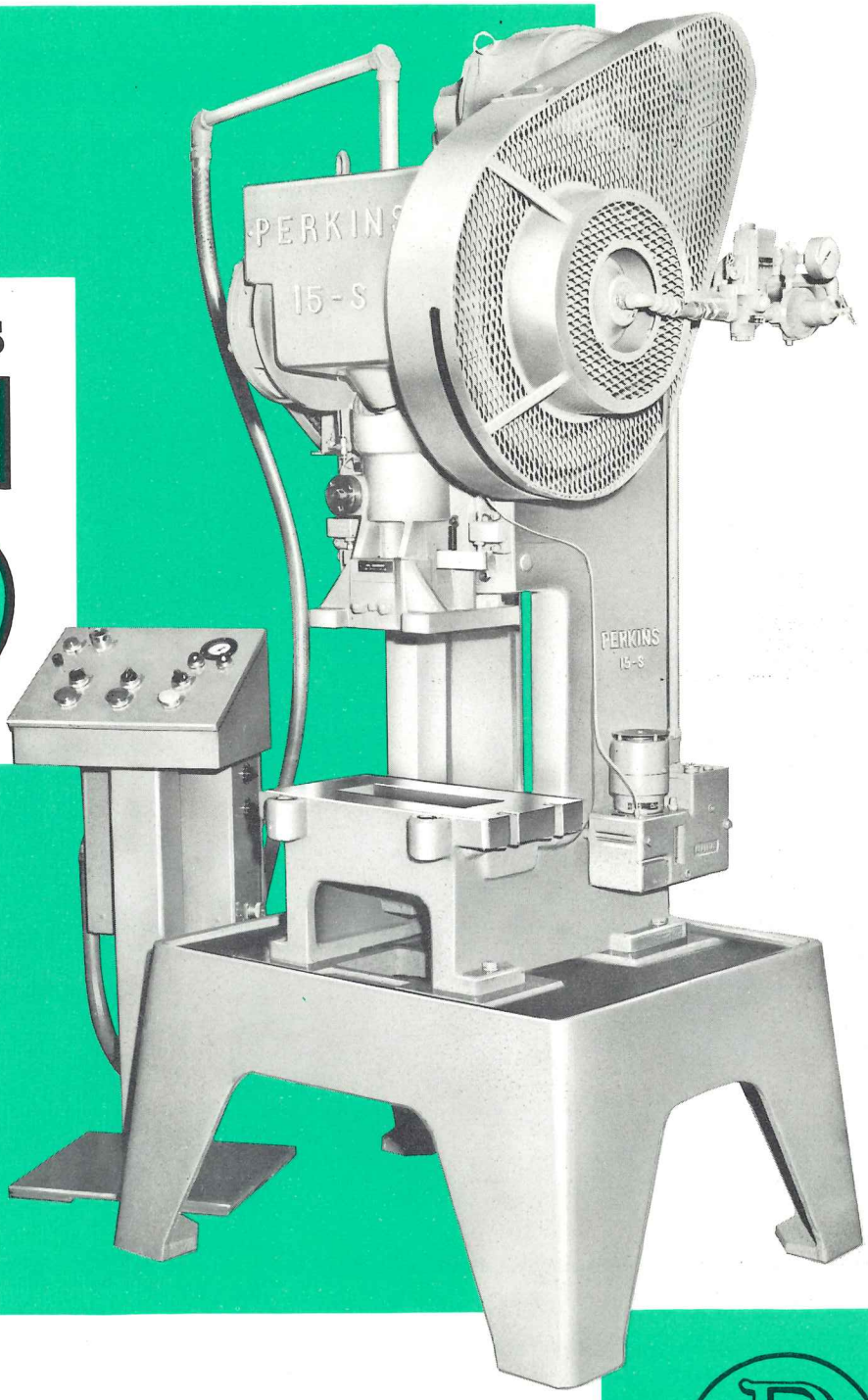
Recd. 9/14/66

PERKINS
POWER PRESSES

SERIES
S



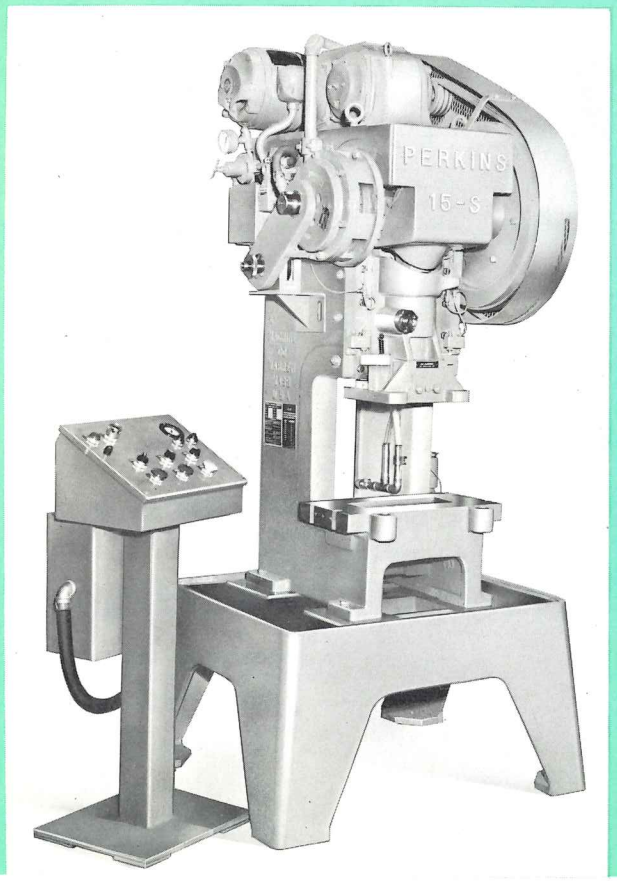
PERKINS MACHINE COMPANY, WARREN, MASS.

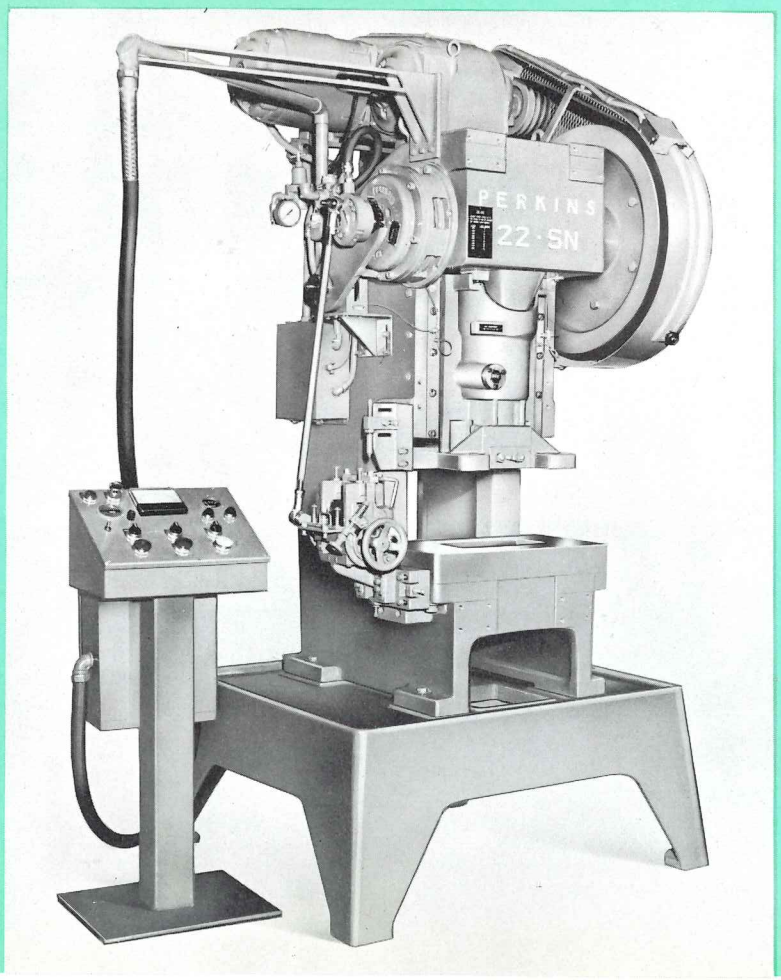
GENERAL DESCRIPTION:

The selection of the proper press today is of vital importance. Competitive market conditions make it necessary for the manufacturer to produce stampings faster — with more accuracy and at less cost per piece.

With these facts in mind, Perkins has designed the "S" line to provide a press that will give complete dependability and maximum efficiency.

Dependable power drive units in the form of air clutches permit high speed operation with precise control. The frame is designed for the rigidity to assure constant alignment.





No. 15S

The No. 15S press shown above is set up for high speed operation with a variable speed drive, recirculating oiling system and is mounted on a solid cast iron base.

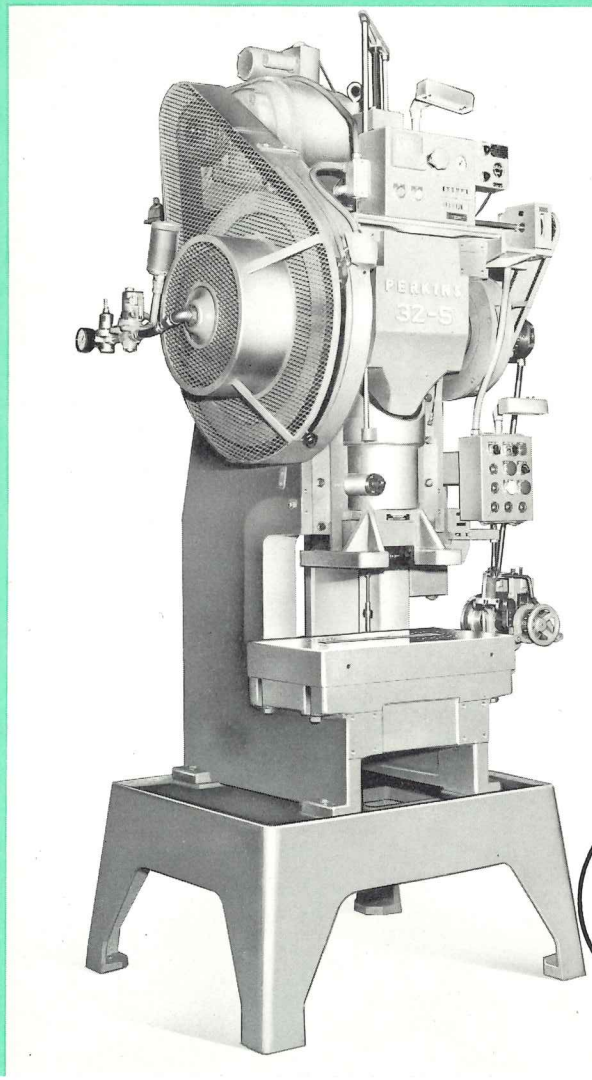
No. 22S

This is a 22 ton high speed press. It is equipped with a variable speed drive for speeds of 200 to 600 rpm and the electric controls are mounted in a separate pedestal.

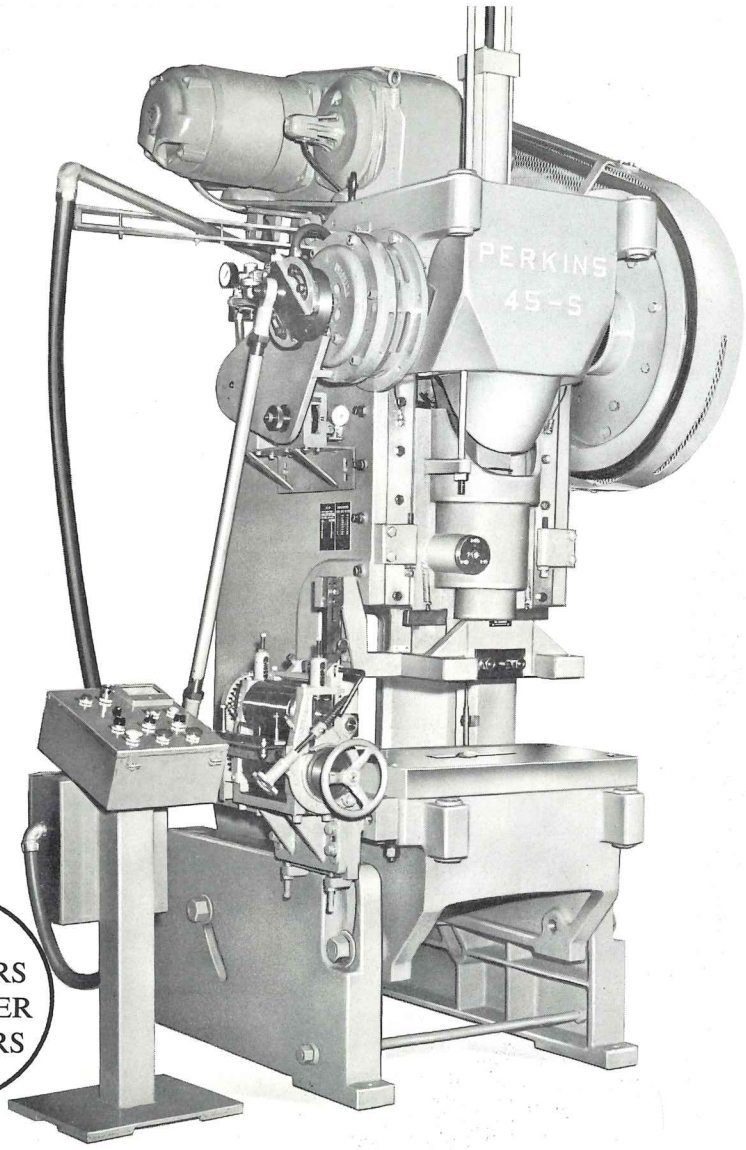
SERIES "S" PRESSES

Every component of the "S" press has been engineered and field tested under conditions that prove the overall effectiveness of PERKINS PRESS PERFORMANCE!

New approaches to long standing press problems such as alignment, lubrication, bearing loads, die set-up and control have been given full study — with results that are incorporated in the "S" line, to bring you presses that will deliver the most production at the least operating cost.



PRESS BUILDERS FOR OVER 60 YEARS



No. 32S

This 32 ton Model S has the flywheel and air clutch mounted on the left side with the feed roll mounted on the right side. It has a variable speed drive with remote control and tachometer.

No. 45S

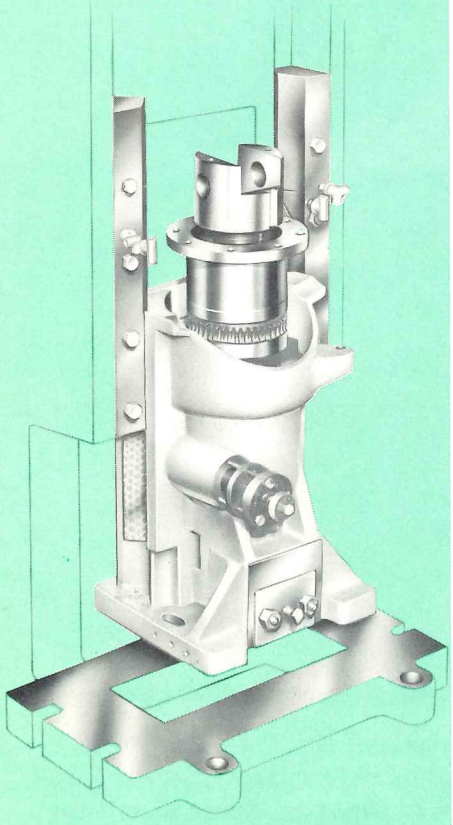
Illustrating the heavy 45 ton Model S mounted on inclining legs. It is equipped with a variable speed drive, air cylinder counterbalance, single roll feed and a separate control pedestal.

(Features in detail on following pages)

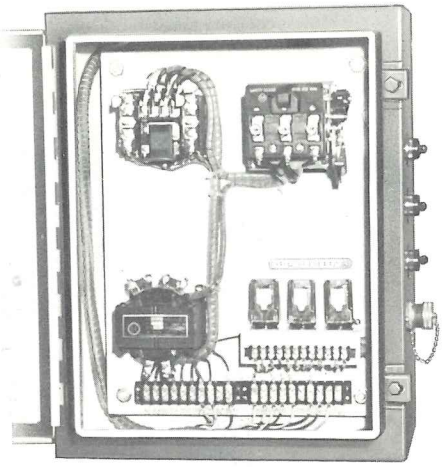
FEATURES: SERIES "S"

FEATURES OF "S" PRESSES

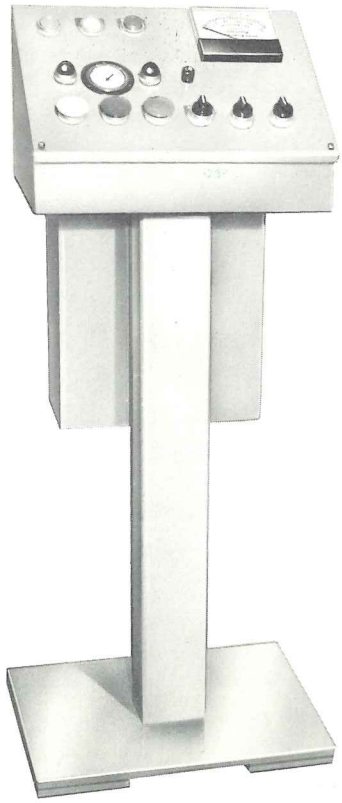
- Hardened and ground gibs.
- Replaceable bronze wear strips bonded to ram.
- Self locking ram adjustment.
- Consistent press accuracy and rigidity.
- Separate pedestal operating control.
- Heat treated alloy crankshaft.
- Recirculating lubrication with low pressure control.
- Flanged ram with cap front.
- Prelubricated and sealed anti-friction flywheel bearings.
- Bar holes in flywheel for manual die setting.



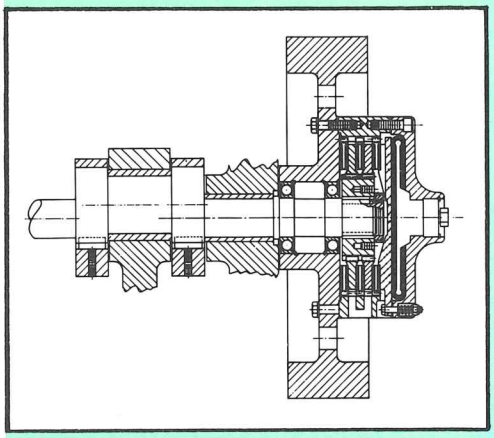
EXPLODED VIEW OF RAM ASSEMBLY
Replaceable bronze liners, self locking ram adjustment, bronze bushed connections.



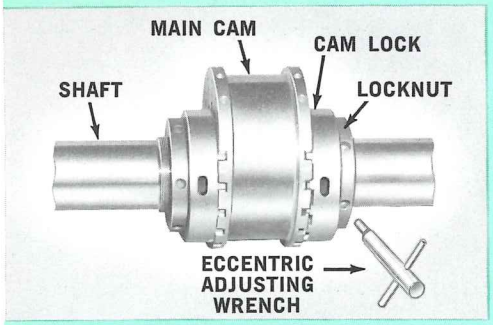
Fused control panel with plug-in relays and external micro-switch tie-in provisions.



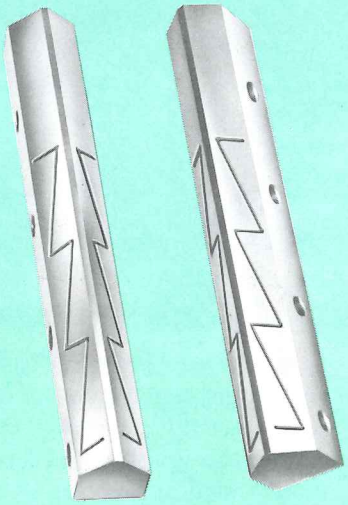
PEDESTAL CONTROL PANEL



SHAFT ASSEMBLY SHOWING LOW INERTIA CLUTCH, DOUBLE SEALED PRE-LUBRICATED BALL BEARINGS, ALLOY SHAFT WITH LARGE BEARINGS AND BALANCED CRANKSHAFT.



ADJUSTABLE STROKE
Easily adjustable assembly provides 9 stroke lengths.



GIBS
Hardened and ground gibs with deep milled oil grooves.

PERKINS PRESSES

LUBRICATION

High speed presses require special attention to lubrication. A recirculating oil system has been developed which offers maximum protection to bearings and also prevents oil from dripping on the dies or work in progress . . . with little oil consumption.

AIR CLUTCH and BRAKE SYSTEM

A separate air clutch and spring set air release brake, controlled by the PERKINS PATENTED ROTARY LIMIT SWITCH and CONTROLS, provide the fastest possible stopping. "S" Series presses can be stopped in less than one revolution at speeds to 800 SPM. The patented rotary limit switch is calibrated and can be easily set for any press speed. The air clutch controls provide the following functions: single stroke • jog • continuous run • top stop • microswitch tie-in provisions for emergency stop and top stop • remote plug for single and continuous operation with top stop • manual control (disconnects all electrical controls, engages clutch and releases brake).

AUTOMATIC FEEDING EQUIPMENT

"S" Series Presses can be equipped with many types of feeds. Complete packages can be supplied including all kinds of feeding, material handling, straightening and scrap cutting equipment. Perkins engineers will be glad to work with you on your requirements.

OPTIONAL EQUIPMENT

Adjustable stroke • frame mounted wheel • tie rods • spacer tubes • motorized ram adjustment • variable speed motors • electric remote speed control • electric tachometer • air counter balance • cyclical lubrication system • predetermined stroke counter • die cushion • low air pressure cut-out switch • J.I.C. ram and bolster plates • vibration mounts • safety cover over guard slot prevents motor from running when cover is open.

DIE SETTING

The Series "S" press is designed for quick, accurate and easy die changing. The ram adjustment is self-locking and is run by a speed wrench or optional motor. The worm and wheel design provides for accurate adjustment.

ACCURACY

Bed to ram is accurate to .001 per foot of bed length, right to left and front to back. Ram has accurate vertical travel to .001 which is extremely important with expensive dies. The ram shank hole is square to the ram face. All of these construction features result in extra long die life and provide a press which is ideal for carbide dies. Tolerances to .0005 are available at extra cost.

RIGID MACHINE MOUNTING

A solid cast iron base is standard for presses running at high speeds. At high speeds, stability is held to a maximum. Inclining legs are available.

BALANCED CRANKSHAFTS

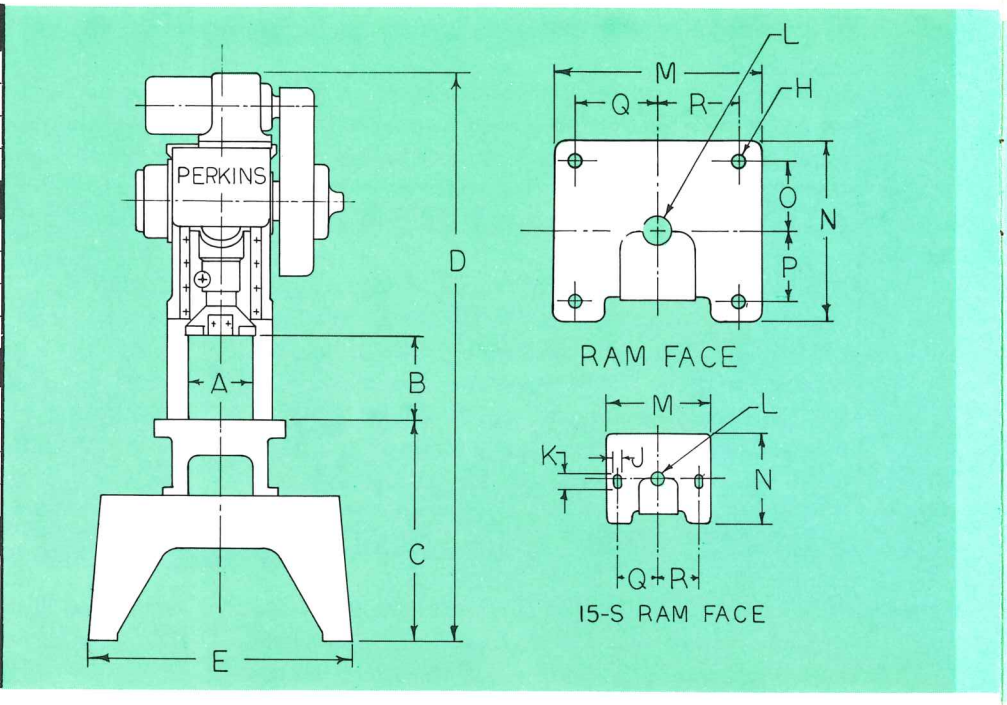
Crankshafts are equipped with counterweights which smooth the action at high speeds. Air cylinder counterbalances are available.

(Specifications on following pages)

SERIES "S" PRESS

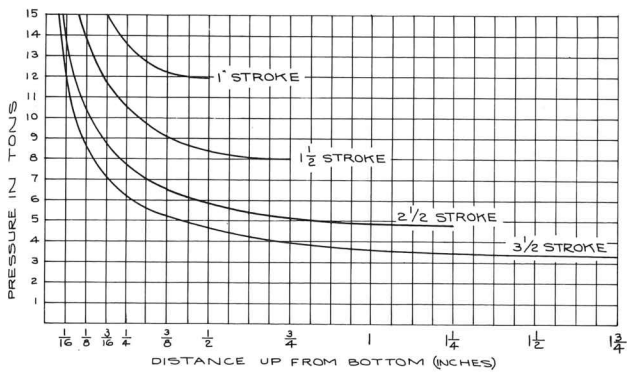
DIMENSIONS

	A	B	C	D	E	F	G
15 S	9¾	11¼	32	82	40	5¾	32
22 S	11¼	11¼	32	90½	46	6¾	40
32 S	12¾	12½	33	100	46	8¼	40
45 S	16	14	30	110	28½	10	43
	H	**J**	**K**	**L**	**M**	**N**	**O**
15 S	—	¾	1⅜	1½	10½	9	—
22 S	¾	—	—	1½	15	10	3¾
32 S	13/16	—	—	1⅝	15	12	4¾
45 S	13/16	—	—	2⅛	18	14	6
	P	**Q**	**R**	**S**	**T**	**U**	**V**
15 S	—	4⅛	4⅛	20	10	8¼	4
22 S	3¾	4¾	4¾	22	12	11¼	5
32 S	4¼	6	6	26	14¾	—	—
45 S	6	7½	7½	30	18	—	—
	W	**X**	**Y**	**Z**	**AA**	**BB**	**CC**
15 S	11¾	20	10	2	—	—	—
22 S	17	22	12	2½	—	—	—
32 S	—	26	14¾	2½	10	7½	10½
45 S	—	30	18	3	12	8⅝	13⅛



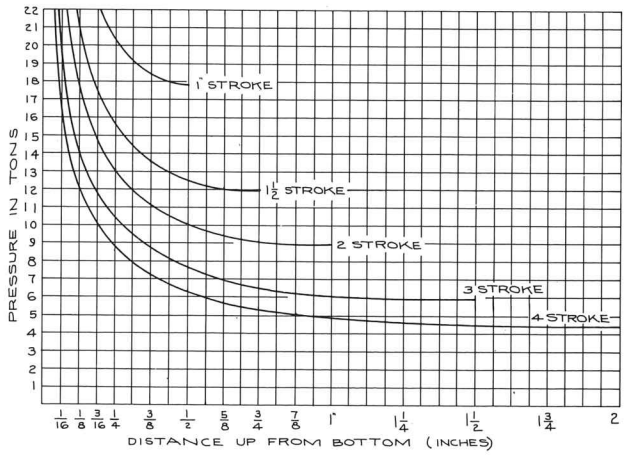
15 Ton Press Model 15S

SHAFT DIA. MAINS & PIN	2⅛ - 3 3/16
STROKE STANDARD	1½
STROKE MAXIMUM	3½
ADJ. STROKE RANGE (9 STROKES)	¾ - 2
DIA. STANDARD WHEEL	24
DIA. HIGH SPEED WHEEL	20
STANDARD SPEED	140
MAXIMUM SPEED	600
RAM ADJUSTMENT	2¼
MOTOR	1½ - 1200
STANDARD SPEED-GEARED	55
MAXIMUM INCLINE	30°
WEIGHT OF PRESS	3250

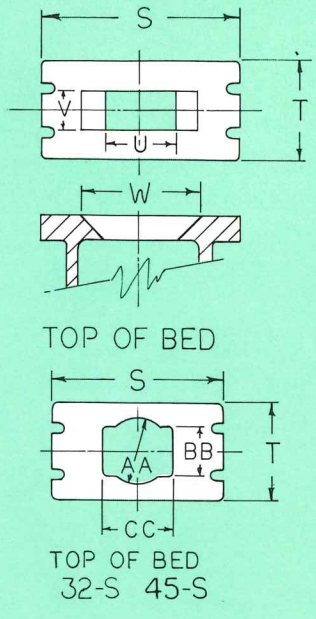


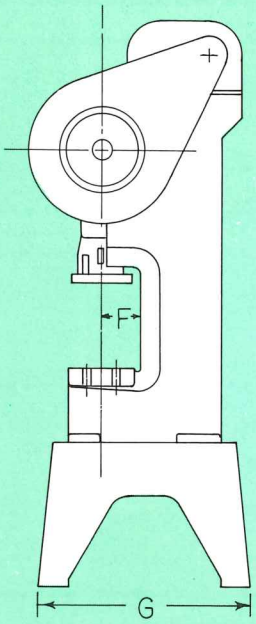
22 Ton Press Model 22S

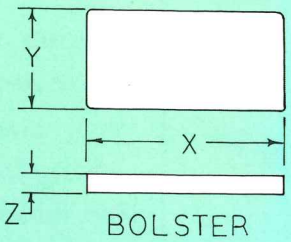
SHAFT DIA. MAINS & PIN	2½ - 3¾
STROKE STANDARD	2½
STROKE MAXIMUM	4
ADJ. STROKE RANGE (9 STROKES)	¾ - 2
DIA. STANDARD WHEEL	28
DIA. HIGH SPEED WHEEL	24
STANDARD SPEED	130
MAXIMUM SPEED	600
RAM ADJUSTMENT	2½
MOTOR	2 - 1200
STANDARD SPEED-GEARED	55
MAXIMUM INCLINE	30°
WEIGHT OF PRESS	4500



S P E C I F I C A T I O N S

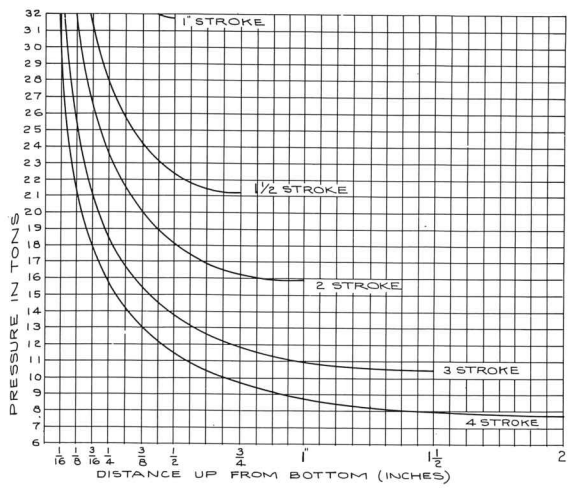






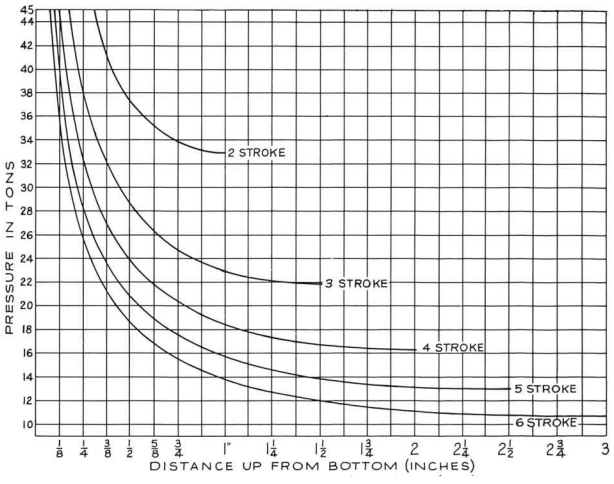
32 Ton Press Model 32S

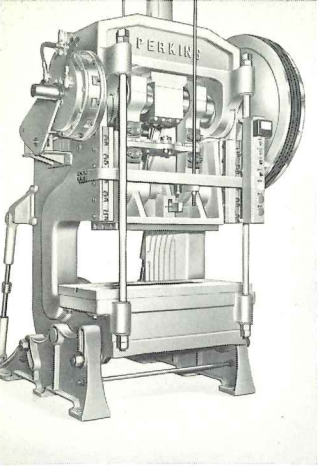
SHAFT DIA. MAINS & PIN	3 - 4½
STROKE STANDARD	3
STROKE MAXIMUM	5
ADJ. STROKE RANGE (9 STROKES)	¾ - 2
DIA. STANDARD WHEEL	30
DIA. HIGH SPEED WHEEL	28
STANDARD SPEED	120
MAXIMUM SPEED	600
RAM ADJUSTMENT	2½
MOTOR	3 - 1200
STANDARD SPEED-GEARED	50
MAXIMUM INCLINE	30°
WEIGHT OF PRESS	6000



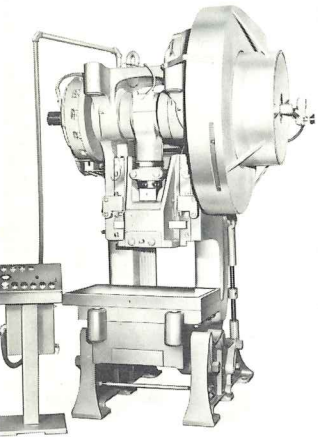
45 Ton Press Model 45S

SHAFT DIA. MAINS & PIN	3⅝ - 5¼
STROKE STANDARD	3
STROKE MAXIMUM	6
ADJ. STROKE RANGE (9 STROKES)	1 - 3
DIA. STANDARD WHEEL	36
DIA. HIGH SPEED WHEEL	30
STANDARD SPEED	100
MAXIMUM SPEED	450
RAM ADJUSTMENT	2½
MOTOR	5 - 1200
STANDARD SPEED-GEARED	50
MAXIMUM INCLINE	30°
WEIGHT OF PRESS	8000

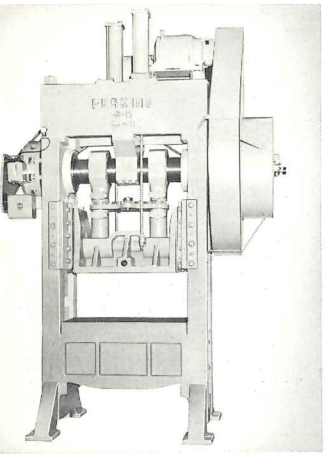




Illustrated: 700-B Double crank Air Clutch Press. Double Crank Presses in capacity of 9 to 135 tons.



Illustrated: 700-B OBI. Presses from 9 to 135 tons.



Illustrated: 100 ton 9-H Press. Straight Side Built-up Frame H Series Presses — 30 to 100 Tons.

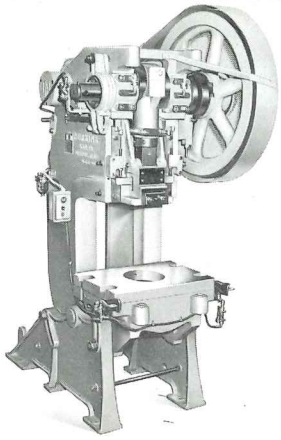
60S PRESS SPECIFICATIONS

Shaft dia. mains and pin	4 - 6
Stroke standard	3½
Stroke maximum	7
Adjustable stroke range (9 strokes)	2 - 4
Dia. standard wheel	40
Dia. high speed wheel	36
Standard speed	90
Maximum speed	400
Ram adjustment	2¾
Motor	5 - 900
Standard speed — geared	45
Weight of press	11,000

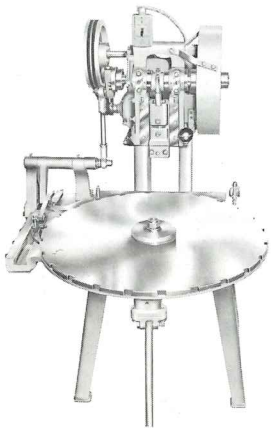
Consult factory for other than standard speeds.
Consult factory regarding larger motors required by high speed and automatic presses.

These photographs illustrate a few of the many sizes and models of presses and feeds also manufactured by Perkins Machine Company.

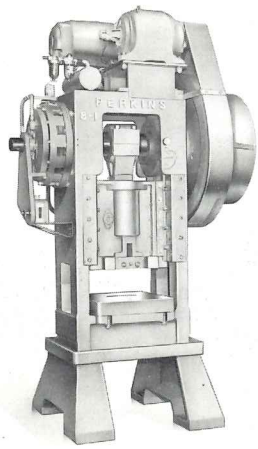
PERKINS MACHINE COMPANY
WARREN, MASSACHUSETTS 01083
Area Code 413 — Phone: 436-7771



Illustrated: 550-B 45 ton OBI Press with mechanical clutch.



Illustrated: 1-A Dial Press. Dial feeds available in a wide range of sizes.



Illustrated: 8-I 75 ton air clutch press. Straight side single crank presses — 20 to 100 tons.

Form S-2/10M/3-64

Printed in U.S.A.